IX. *A Letter from* Mr. Halley *of* June *the* 7*th.* 97. *concerning the* Torricellian *Experiment tryed on the top of* Snowdon-*hill and the ſucceſs of it.*

LAST *Whitſon-week* by the favour of Mr. *Davis*, a good Friend of Dr. *Trancred Robinſon's*, I had the opportunity of ſeeing what I pleaſed in North *Wales*, and was on Wedneſday *May* 26, on the top of *Snowdon*, where I tried the *Torricellian* Experiment with all the ſatisfaction I could wiſh for; the Air continued both before and after in the ſame ſtate as I got it verified by Mr. *Davis's* ſtanding Barometer at *Llannerch* in *Denby-ſhire*, about 25 Miles Eaſt from *Snowdon* where it was Obſerved as follows.

		h	′		*Inch.*	·
May	25	8	15		29	7
		10	8		29	$8\frac{1}{2}$
	26	8	16	Morn.	29	8
		11	00	Morn.	29	8
		3	00	Aft.	29	$7\frac{3}{4}$
		6	00		29	$7\frac{1}{2}$
		9	30		29	$7\frac{1}{2}$
	27	6	00	Morn.	29	7
		10	00		29	7
		3	30	Aft.	29	$7\frac{1}{4}$
		6	15	Aft.	29	$7\frac{1}{4}$
	28	5	00	Aft.	29	8
		10	00		29	8

LLanerch is about a Mile and an half above the Town of St. *Aſaph*, about 6 Mile from the Mouth of the River

River *Lluyd*, which falls with a rapid Stream into the *Iriſh* Sea; and conſequently, is ſeveral Foot above the Surface thereof.

May 26. Between One and Two in the Afternoon, on the top of *Snowdon*, I thrice repeated the Experiment, and as often found the height of the *Mercury* 26 Inches 1. And being come down to *Llanberris*, at the Foot of the Hill, about Six that Evening, I as often found it 29 Inches 4. A little above this place, are the principal Fountains of the River, that falls into the Channel of *Angleſey*, at *Carnarvon*, call'd anciently *Segontium*, whither we went the next Day; and about Eight at Even, found the *Mercury*, by a triple Experiment, to ſtand at 29 Inches 9°, very near the Surface of the Sea: When, at the ſame time, at *Llanerch*, it was not above 29 $7\frac{1}{2}$; whence I conclude, that the Difference of the Airs Preſſure on the Sea, and on the top of *Snowdon*, is rather more than 3 Inches, 8 Tenths. I could have wiſh'd for one of Mr. *Hunt's* portable Barometers; which will certainly be accurate enough for taking the Levels, for bringing of Water from diſtant places, and certainly much leſs ſubject to Error; there being a Tenth of an Inch for each Thirty Yards, which may be divided into many parts evidently. *Snowdon* was meaſured by Mr. *Caſwel*, with *Adams's* Inſtruments, to be 1240 Yards high; which abating the height of the *Mercury* 3 Inches, 8 Tenths, may ſerve for a Standard, 'till a better be obtained on a higher place. From hence the Sea dipt every-where above a Degree below us, the Viſible Horizon being a leſſer Circle, and we ſaw *Ireland* plainly, fron the *W b S* to *S W b W*, and then appearing in the *N N W*, and the Mountains of *Cumberland* or *Weſtmoreland* very faintly, but evidently in the North; and I think we ſaw as far as St. *David's* Head into the South; *Carnarvonſhire* and *Angleſey* lay under us, like

a Map, affording a very pleaſant Proſpect, were it not for the Horrours of the Neighbouring Precipices. Hence we counted fifteen or ſixteen Lakes, great and ſmall, where the Cavities of the Rocks are filled up with the Rills that gleet from the Hills; all theſe are ſaid to abound with Trouts, ſome of which we found to be eſpecial good Fiſh: And in one of theſe Lakes I was on board a floating Iſland, as it may be called; the Lake is ſcarce half a Mile about, environed with a boggy turfy Soil, a piece of which, about ſix Yards long and four broad, floats on the Water, being about five or ſix Inches raiſed above it, but it, I believe, about eighteen Inches deep within the Water, having broad ſpreading fungous Roots on its ſides, the lightneſs of which Buoys it up. It was driven on the Lee ſhore, but I lanched it off and ſwam it, to be ſatisfied it floated: This I take the more notice of, becauſe it is denied to be true, by the Author of the Additions to *Cambden*, lately Publiſhed: But I my ſelf ſaw it as deſcribed, and was told it had formerly been bigger, there being a leſſer ſpot, that they told us had been heretofore a part thereof, which floated likewiſe. I have not time nor Paper to deſcribe this horrid ſpot of Hills, the like of which I never yet ſaw, but ſhall endeavour therewith to give the Society a further Entertainment.

Yours, &c.

Account